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**A METHOD OF PLAYING A BINGO-TYPE GAME WITH A  
MECHANICAL TECHNOLOGICAL AID, AND AN APPARATUS  
AND PROGRAM PRODUCT FOR PLAYING THE GAME**

**RELATED APPLICATIONS**

**[0001]** This patent application claims priority to and all advantages of United States Provisional Patent Application 60/453,460, which was filed on March 10, 2003. The disclosure of the '460 provisional application is herein incorporated by reference in its entirety.

**FIELD OF THE INVENTION**

**[0002]** The subject invention generally relates to a method of playing a bingo-type game. The subject invention also generally relates to an apparatus and a program product for playing the bingo-type game. More specifically, the subject invention relates to a method, apparatus, and program product that use a mechanical technological aid to display a representation of a result of the bingo-type game.

**BACKGROUND OF THE INVENTION**

**[0003]** Bingo-type games are known in the art. For example, as is known, a traditional bingo game is played with bingo cards, which typically have a 5 X 5 grid. More specifically, this grid includes 5 columns and 5 rows, and the letters, "B," "I," "N," "G," and "O" are at the top of each column. Under each letter are five numbers, with the exception of the center space which is typically a free space. Therefore, there are typically 24 numbers. The numbers on the each bingo card are randomly established so that each bingo card is unique. The bingo cards further include a predetermined pattern or patterns, which are typically represented by a darkened segment in the traditional bingo game. Numbers are called, e.g. "I-20", and players of the game daub, or otherwise, mark-off the number if they have it. Once a player achieves the predetermined pattern or patterns, and the player actually recognizes this achievement, he or she wins and the game is over.

**[0004]** Other bingo-type games include modern variations of the traditional bingo-type

game. Some of these modern variations are played in a casino or gaming hall at a client, i.e., terminal. The client is also referred to as an electronic play station. These modern variations have various attractions and designs, including aesthetic symbols and both audio and visual animations, to attract players thereby increasing a level of play. As alluded to above, these modern variations are bingo-type games. However, there is a recognition throughout industry that players of even the modern bingo-type games do not consider these games as exciting and attractive as standard slot machines. Simply stated, the bingo-type games do not look and operate like standard slot machines. For this reason, the bingo-type games of the prior art do not peak the interest of a patron of the casino or gaming hall. This impacts the level of play as compared to that of the standard slot machines and is, therefore, undesirable to both the industry and players.

[0005] To this end, there have been efforts to maintain a bingo-type game yet still create the 'appearance' of a standard slot machine to a player of the bingo-type game. These efforts have, more specifically, focused on displaying a representation of a result of the bingo-type game, i.e., whether a player has won or lost, through a technological aid at the electronic play station. Therefore, although the player is playing the bingo-type game, and any payouts to the player are based on this bingo-type game, the player pays particular attention to what the technological aid reveals, i.e., the player pays particular attention the *representation* of the result. However, to date, the technological aids have been limited to video-based technological aids. Examples of video-based technological aids are disclosed in United States Publication No. US 2002/0132661 A1 to Lind et al. The video-based technological aids of Lind et al. are disposed on a video screen where the bingo-type game (including the bingo card and the called numbers) is also displayed and not separate from this video screen (see, for example, Figure 1, labeled "Prior Art"). For this reason, these technological aids are particularly cumbersome. Simply stated, the spinning reels, playing cards, roulette wheel, die, keno board, and horse race of Lind et al. are limited to video-based technological aids.

[0006] It is recognized throughout the industry that video-based technological aids are deficient for a variety of reasons. One of the most important reasons is that the typical casino or gaming hall patron prefers devices that are perceived to be mechanical-based

devices as compared to devices that are perceived to be video-based devices, such as video-based technological aids. For instance, when given the option between a standard video-based slot machine, i.e., a slot machine where the reels are on a video screen, and a standard mechanical-based slot machine, i.e., a slot machine where the reels are on a mechanical drum or drums, more players than not will opt to play the mechanical-based slot machine. For obvious reasons, this preference would be detrimental to a level of play of a bingo-type game that uses a video-based technological aid as compared to a bingo-type game that would use a mechanical-based device, such as a mechanical technological aid.

[0007] Due to the deficiencies with the bingo-type games of the prior art, especially the efforts focused on video-based technological aids, it is desirable to provide a new and unique bingo-type game that creates the perception of a mechanical-based slot machine such that the interest of the patrons can be peaked and the level of play can be maximized.

#### SUMMARY OF INVENTION AND ADVANTAGES

[0008] A method of playing a bingo-type game is provided. The method includes the step of generating a result of the bingo-type game, and displaying a representation of the result. The representation of the result is, more specifically, displayed through a mechanical technological aid at an electronic play station.

[0009] An apparatus and a program product for playing the bingo-type game are also provided. The apparatus includes a server and the electronic play station. The server generates at least one called number, which correlates to the result of the bingo-type game. The electronic play station, which is in operative communication with the server, includes the mechanical technological aid. As such, the electronic play station, through the mechanical technological aid, is able to display the representation of the result of the bingo-type game. The program product, which is stored on computer readable media, includes a result program code and a display program code. The result program code generates the result of the bingo-type game, and the display program code displays the representation of the result through the mechanical technological aid at the electronic play station.

[0010] The mechanical technological aid functions to assist a patron of a casino or gaming hall, or a player who is actively playing the bingo-type game, in identifying, i.e., realizing,

whether they have won or lost the bingo-type game. The individual can simply look to and rely on the mechanical technological aid to evaluate what is actually going on in the bingo-type game. Advantageously, the individual does not have to rely on interpreting the result from a bingo card which, as is known, can be cumbersome. Furthermore, the mechanical technological aid on the bingo-type game creates the perception of a standard mechanical-based slot machine, or more generally the perception of a gaming apparatus that relies on mechanically-based devices rather than on video-based devices. All of the above advantages add to the excitement of the bingo-type game of the present invention and increase a level of play associated with this bingo-type game.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0011] Other advantages of the present invention will be readily appreciated, as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein:

[0012] Figure 1 is a front view of a prior art bingo-type game illustrating, in particular, a bingo card, called numbers, and video spinning reels, all displayed on a single video screen;

[0013] Figure 2A is a front view of a electronic play station for playing the bingo-type game including a mechanical technological aid according to the present invention illustrating, in particular, the bingo-type game displayed on a video screen and the mechanical technological aid separate from the video screen;

[0014] Figure 2B is a front view of the electronic play station of Figure 2A where the mechanical technological aid includes one or more mechanical spinning reel;

[0015] Figure 2C is a front view of the electronic play station of Figure 2A where the mechanical technological aid includes one or more mechanical die during mechanical rolling;

[0016] Figure 2D is a front view of the bingo-type game of Figure 2C where the one or more mechanical die are at rest to display a representation of a result of the bingo-type game;

[0017] Figure 3 is a schematic view illustrating a bingo card from the video screen;

[0018] Figure 4 is an enlarged front view of an electronic play station including the video screen for the bingo-type game and the mechanical technological aid separate from the video screen;

[0019] Figure 5A is a general flow chart illustrating both server and client (electronic play station) communication where the bingo-type game is initiated by calling for 40 called numbers; and

[0020] Figure 5B is a general flow chart illustrating both server and client (electronic play station) communication where the bingo-type game is initiated by calling for 3 called numbers.

#### DETAILED DESCRIPTION OF THE INVENTION

[0021] Referring to the Figures, wherein like numerals indicate like or corresponding part throughout the several views, a bingo-type game is generally shown at 10. As described additionally throughout, the bingo-type game 10 of the present invention is played with an apparatus, generally disclosed, but not numbered, in the Figures.

[0022] The apparatus includes a server 12, also referred to as a back-office component, and an electronic play station (EPS) 14. The EPS 14 is in operative communication with the server 12 and includes a mechanical technological aid 16 as described below. Although not required, it is preferred that the server 12 and the EPS 14 communicate via an Ethernet network. Furthermore, the server 12 can be local or remote relative to the EPS 14. The location of the server 12 is not critical to the focus of the present invention. The server 12, primarily the function of the server 12, and the EPS 14 are described additionally below.

[0023] Generally, the method includes generating a result of the bingo-type game 10 and displaying a representation of the result of the bingo-type game 10. More specifically, the representation of the result of the bingo-type game 10 is displayed, at the EPS 14, through the mechanical technological aid 16. Importantly, a determination of whether a plurality of players, i.e., two or more players, are playing the bingo-type game 10 is necessary prior to generating the result of the bingo-type game 10. Thus, it is preferred that there is more than one EPS 14 and that they are operatively interconnected. The EPSs 14 may even be in different casinos and/or gaming halls and/or different states and/or countries.

[0024] A program product for playing the bingo-type game 10, which is stored on computer readable media, follows this general method and includes a result program code and a display program code. The result program code of the program product generates the a result of the bingo-type game 10 whereas the display program code of the program product displays the representation of the result through the mechanical technological aid 16 at the EPS 14. Other program codes may be included in the program product to accomplish the method of the present invention.

[0025] Referring specifically to Figure 2A where the mechanical technological aid 16 is generically represented, it is to be understood that the mechanical technological aid 16 can be an mechanical-based device suitable for displaying the representation of the result of the bingo-type game 10. Preferably, the mechanical technological aid 16 includes one or more mechanical spinning reel. If there is more than one mechanical spinning reel (which typically rotate about a single axis), the reels can be associated with a unitary drum or discrete drums. Other mechanical technological aids 16 suitable for use in the present invention include, but are not limited to, one or more mechanical spinning wheel, one or more mechanical die, one or more mechanical playing card, and combinations thereof. Referring to Figures 2C and 2D, two die (which rotate about more than one axis) are illustrated. This is not required. That is, one die, three die, etc. may be used in place of the two die.

[0026] The method more specifically includes the steps of creating a bingo card 18 (refer to Figure 3) and generating at least one called number 20. These steps occur in response a player beginning play of the bingo-type game 10. To accomplish this, the player inserts money into the bingo-type game 10, preferably into a currency validator. The particular component of the apparatus that creates the bingo card 18 is not critical. It is preferred that the EPS 14 includes a controller 22 for creating the bingo card 18. However, it is to be understood that the server 12 can create the bingo card 18 and can communicate the created bingo card 18 to the EPS 14 as necessary. On the other hand, it is the server 12 that generates the at least one called number 20 that correlates to the result of the bingo-type game 10. Preferably, the at least one called number 20 is generated randomly from a superset of numbers stored in the server 12.

[0027] Although, in theory, the bingo-type game 10 can proceed with a single called number 20, it is obviously more practical and preferred that a plurality of called numbers 20 are generated. Thus, the remainder of the invention will be described only in terms of this plurality 20 as opposed to the single called number 20. This is not to be interpreted as limiting. Depending on the particular form of the bingo-type game 10, the called numbers 20 can be generated at the same time, or the called numbers 20 can be generated in succession. This latter form, where the called numbers 20 are generated in succession, is preferred and is referred to as "Live-Call" bingo.

[0028] Another form of the bingo-type game 10 is known in the art as "Bonanza" or "Instant" bingo and this form of the bingo-type game falls within the scope of the present invention. It is known that in such forms, the called numbers 20 are generated first and then the bingo card 18 is created, and the bingo card 18 is matched to the called numbers 20.

[0029] Once the bingo card 18 is created and the called numbers 20 have been generated, the called numbers 20 are reported to the EPS 14 for comparison to the bingo card 18. The called numbers 20 are then compared to the bingo card 18 to determine whether the called numbers 20 establish a game-ending pattern, an interim pattern, or both patterns on the bingo card 18. In terms of components, the responsibility for the necessary comparison to determine whether the called numbers 20 establish a pattern can lie with the server 12, the EPS 14, or both the server 12 and the EPS 14. As is understood by those skilled in the art, the game-ending pattern and the interim pattern can vary.

[0030] With more specific reference to Figures 5A and 5B and certain game-ending scenarios, the step of generating the result of the bingo-type game 10 includes the step of determining whether the called numbers 20 establish the game-ending pattern on the bingo card 18. If it is determined that the called numbers 20 do establish the game-ending pattern on the bingo card 18, the representation of this result through the mechanical technological aid 16 will be displayed at the EPS 14 in response to this determination.

[0031] More specifically, the controller 22 of the EPS 14 is in operative communication with the mechanical technological aid 16 and activates the mechanical technological aid 16 to display the representation of the result. If the game-ending pattern has been achieved, the representation of the result on the mechanical technological aid 16 will be favorable, i.e.,

symbols of mechanical spinning reels will align across a pay line, depending on the pay table 30. If the game-ending pattern has not been achieved, the representation of the result on the mechanical technological aid 16 will be unfavorable, i.e., the symbols of the mechanical spinning reels will not align across the pay line.

[0032] Next, a game-ending prize is awarded i.e. paid, also in response to this determination (and assuming the game-ending pattern has been achieved). This game-ending prize can be automatically awarded. However, it is preferred to require the player to daub of the game-ending pattern prior to awarding the game-ending prize. Alternatively, an auto-daubing option can be provided prior to awarding the game-ending prize. In this scenario, the player can exercise this auto-daubing option and then be awarded the game-ending prize. Finally, if it is determined that a game-ending pattern has been established, then the bingo-type game 10 is ended in response to this determination.

[0033] On the other hand, independent of the game-ending pattern, a determination is preferably made as to whether the called numbers 20 establish the interim pattern on the bingo card 18. If it is determined that the called numbers 20 do establish the interim pattern (or one of many different interim patterns) on the bingo card 18, the representation of this result through the mechanical technological aid 16 will be displayed at the EPS 14 in response to this determination.

[0034] Similar to that described above, a prize, specifically an interim prize, is awarded in response in response to determining whether the interim pattern has been established on the bingo card 18, assuming that the interim pattern has been established. The daubing and auto-daubing options are also applicable relative to the interim pattern and interim prize.

[0035] The controller 22 of the EPS 14 also operatively communicates with and activates the mechanical technological aid 16, as necessary, to display the representation of the result relative to the interim pattern and interim prize.

[0036] Referring primarily to Figures 2A-2D and 4, the EPS 14 generally includes three sections, specifically a menu section 24, a video display section 26, and mechanical display section 28. The menu section 24 of the EPS 14 includes the pay table 30 which varies depending on a particular number of credits that a player of the bingo-type game 10 desires. The bingo card 18 and the called numbers 20 are displayed on the video display section 26

of the EPS 14 and the mechanical technological aid 16 is disposed within the mechanical display section 28. More specifically, the video display section 26 of the EPS 14 includes a video screen (or monitor) 27 where the bingo card 18 and the called numbers 20 are displayed.

[0037] The mechanical technological aid 16, which is preferably one or more mechanical spinning reels, functions as an aid to assist the players in realizing when they have won or lost the bingo-type game 10. Therefore, the players can look to the mechanical technological aid 16 to determine if they have won or lost. The players do not have to rely on interpreting the bingo card 18, which can be cumbersome. The bingo-type game 10 of the present invention improves the interest of the players and adds excitement to the bingo game. It is important to recognize that the displaying of the representation of the result through the technological aid is not a secondary, or bonus, game that is played in conjunction with the bingo-type game 10. The representation on the mechanical technological aid 16 is not a separate game. Instead, it is only indicative of the results of the bingo-type game 10.

[0038] The invention has been described in an illustrative manner, and it is to be understood that the terminology which has been used is intended to be in the nature of words of description rather than of limitation. Obviously, many modifications and variations of the present invention are possible in light of the above teachings, and the invention may be practiced otherwise than as specifically described.